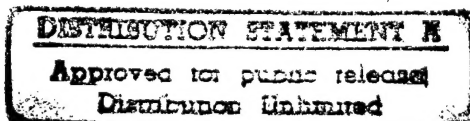


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COMMODITY INVENTORY SYSTEM

- COMMUNIST CHINA -



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COMMODITY INVENTORY SYSTEM

[The following is a full translation of an article by the Statistical Office, Planning Bureau, Ministry of Commerce. It appeared in Chung-yang Ho-tso T'ung-hsun (Central Cooperative News), No 12, Peiping, 11 December 1959, pages 26-28.]

To periodically take commodity inventory is an essential work in the operation and management of commercial enterprises. Particularly when a retail enterprise is practicing the auditing of sales receipts, the work of taking commodity inventory is not only a means of implementing the receipts auditing system, but also an important method of getting statistical figures on sales through the general use of "calculating sales by taking inventory" (i.e., to record regularly the amount of commodities purchased and transferred from other enterprises, and, at the end of a period, to take commodity inventory on which the calculation of commodity sales is to be based). To improve the method of taking inventory will not only shorten the time necessary to do the job, advance the quality of inventory-taking work, and improve the operation and management of enterprises, but will also greatly lessen the labor intensity of sales personnel, enhance the quality of auditing work, and effect timely presentation of statistical data and preparation of accounting reports and tables.

The length of time required for taking commodity inventory and the quality of inventory-taking work are closely related to ordinary commodity management and the method of taking commodity inventory. Suppose there are two retail enterprises of same type and selling the same commodities. One enterprise regularly stresses commodity management, achieving adequate arrangement of commodities and orderly purchases and sales. It also adopts different inventory-taking methods for different commodities. The other, however, is chaotic in its storing and placing

of commodities; it does adopt an adequate method for taking inventory. It is apparent that the quality of their inventory-taking work and the time required would be different for these two enterprises. At present, quite a few retail enterprises in various localities have acquired experiences of rapidly taking inventory of commodities. The principal contents of such experiences are: to uphold persistently political commandship, fully mobilize and rely on the masses, conduct research on various methods of taking inventory, and strengthen the organization and leadership of inventory-taking work. Commodity management and preparatory work necessary for inventory-taking should be well performed so that the inventory-taking work may be carried out within a short period with good quality with little labor. In the following we shall introduce the concrete measures they have used to serve as references for enterprises in different localities:

(1) Improve the management and display of commodities. To facilitate selection and purchase by consumers without, at the same time, producing any adverse effect on the beautiful display of commodities, to maintain interlocking relationships among commodities, and to stimulate sound business operations and high work efficiency, these retail enterprises, as a first step, take inventory of all the commodities they handle. Then, based on the commodity classifications used in plans and statistics and also the peculiar characteristics of the enterprises' operation, they arrange commodities to be handled by various sections; each section undertakes separate operations for different types of commodities. Each operation section is to display commodities of the same category at fixed places according to catalogue order and prices, and place related items, but not of the same category, at adjoining counters. As to some small retail stores which have not organized separate operation sections, commodities are arranged in orderly display according to commodity catalogue.

A label (showing the name and price of a commodity, is designed for each commodity. The whole sets of commodities in stock rooms should be neatly placed in the same order as displayed at retail counters; each of them should be provided with a stock-keeping card. The aim of such devices is to effect basic agreement in the arrangement of commodities on retail shelves, at counters, and in stock rooms with commodity inventory tables

and commodity catalogues. Thus, inventory may be taken according to the order of relevant tables and catalogues, thereby not only shortening the time for taking inventory, but also avoiding errors in undertaking such work.

(2) Perform sound preparatory work for taking inventory. In order to carry out inventory work smoothly there should be sound preparations necessary for such work. First, check accounts and cards, i.e., the operation sections (or those who are responsible for handling goods), together with accounting personnel, should check receipts and expenditures from sales and purchases during the period, increases or decreases in treasury funds, and commodity prices. In addition, when the stores are not too busy, these personnel should sort out commodities in stock rooms and check the balances shown on inventory cards against the actual amount in stock. If commodities are taken out or sent in after inventory is taken corresponding entries are recorded on the inventory cards. Thus it will not be necessary to take a physical count of commodities again at the time of taking inventory, thereby economizing time. In the meantime, efforts should be made to check and settle internal transfer accounts among different sections.

Second, data should be recorded on commodity inventory tables which have columns for the number of commodities, name of commodities, unit of calculation, and unit prices. Those retail units which have obtained statistical data through the method of "calculating sales by taking inventory," should also fill in the amount of goods received and sold during the period, and the inventory amount at the beginning of the period. In this way by the time when the work of taking inventory is concluded, sales of principal commodities during the period can be figured out immediately, thereby ensuring the timely presentation of statistical data.

Third, because of the uneven technical ability of operation personnel, in the course of taking inventory, efforts should be made to organize work forces, strengthen mutual assistance, and fully mobilize the workers to penetrate into current undertakings and help weak links to carry on inventory work. Store managers, section heads, accounting personnel, and statistical personnel should all assist newly recruited operation personnel in the taking of inventory. In addition, a clear division of labor should be worked out in advance. The work on taking inventory, filling out

tables, calculating cash balances on hand, and compiling statistical figures of commodities should be assigned to different groups each is held responsible for one aspect of the entire undertaking.

Fourth, efforts should be made to educate those who participate in the work of taking inventory. They are required to count the inventory carefully so as to be accurate in the counting of inventory, reporting at figures, entries on inventory tables, and the computation of the amount and value of commodities.

(3) Adopt appropriate methods of taking inventory. Because of differences in commodity specifications, packing, and safe-keeping conditions, the methods of taking inventory are also different. At present, the effective inventory-taking methods used by retail enterprises are as follows:

1. The safe-keeping of commodities is divided into two parts: safe-keeping in stock rooms and displaying on retail shelves and counters. The safe-keeping of commodities in stock rooms is provided with commodity cards (recording the name, amount, and price, of commodity). Commodities transferred from stock rooms to retail shelves or counters for sale, or shipped to the stock rooms from purchases should be recorded immediately with respect to the outgoing and incoming amount and the net balance. Commodities on retail shelves and of counters are displayed in fixed quantities at fixed places; inventory cards are not required. Thus in taking inventory it is necessary only to count the actual amount of commodities on display. Adding to this the balance kept in stock rooms as recorded on commodity inventory cards, the total commodity inventory will be obtained.

2. Mark figures to facilitate inventory-taking. This is applied to commodities such as cotton cloth and silk goods. At the time of folding cloth or silk goods, mark figures with color chalks every 10 feet (or 13 feet) on them and attach to them a small card on which the length of the entire bolt is recorded. In taking inventory, no counting is required for cotton cloth which has not been cut for sale. As for those bolts which have been cut for sale, only the length following the marked figures needs to be measured. For instance, on a bolt of cloth there is a mark of 30 feet; no figure is marked for the remaining part. If the latter is measured to be

three feet long, we may know that this bolt still has a length of 33 feet.

3. Take count of cloth coupons and calculate sales to ascertain inventory. By adding the cloth coupons returned (in the case of multiple operation units which receive cloth coupons from sales of ready-made clothes, these coupons should be kept separately) the sales for which no coupons are returned (recorded separately), retail stores may obtain the figures for total sales. Deducting the latter figures from those for purchases, they will also arrive at the figures for inventory. At the end of each quarter when an overall inventory work is undertaken, such derived inventory figures are further checked and adjusted against the physically counted commodity inventory.

4. Figure out balances at the time when sales are recorded on cards. This is applied to bulky, heavy, and difficult-to-count commodities, such as table salt and coal. Some of these commodities may be put in separate places for sale and storage. Ordinarily, only the balances resulted from transfers to or from the stock rooms are recorded. At the end of each month, the total balances of inventory may be obtained by totalling all odd amounts and deducting losses in storage.

5. Count inventory by fixed labels. The procedure is to use a long stiff card on which a series of figures are printed. With each sale the figures are crossed off from the largest one up in accordance with the actual amount of sale. At the time for the taking inventory the remaining largest figure which has not be crossed off will represent the amount of inventory. For instance, each roll of gelatinous thread is 100 feet long; on an attached card there are printed figures from 1 to 100. When 15 feet of the roll is sold, the figures from 100 to 86 on the card will be crossed off. The remaining largest figure, 85, will indicate the amount of inventory. From this figure, the operation personnel can also know that 15 feet of the roll has been sold.

6. Mark figures on separate packs and count inventory by totalling all odd figures to rounds sums. For instance, paper is separately marked every 50 or 100 sheets. At the time of taking inventory, the actual amount in stock may be obtained by adding odd figures to

round sums. A store may also make figures with pencil on the back of every tenth sheet. The actual inventory figure will be obtained by counting at most up to nine sheets.

7. Deduct the weight of a container from gross weight to get net weight. In the case of commodities like powdered milk, before pouring it into a container, the latter should be weighed, the weight should be marked on the outside of the container. At the time of taking inventory, the actual figure for the commodity in stock can be obtained by deducting the weight of the container from its gross weight. In the computation of sales deductions should be made for storage losses due to natural causes according to standard rates.

8. Record sales on cards and calculate inventory from sales figures. There is one card for each commodity, showing the name and value of the commodity. With the sale of each commodity a card is put in its place. These cards will be checked every ten days and gathered to compute inventory amount from the figures for purchases and sales at the end of a month.

9. Combine calculations for commodities of the same category and same price but with different brands. Commodities of the same category and same price but with different brands (such as soap with Knight, Golden Cock, and other brands) are to be placed side by side. In taking inventory, the value of such commodities may be obtained by just adding the amount of each commodity and multiplying the resultant figure by unit price. This method saves time for computations.

10. Calculate sales and balances through the use of invoices. This method is applied to the handling of high-priced commodities such as watches, radio, bicycles, etc. Each piece of such commodities is provided with a card on which entries are made in accordance with purchase and sale invoices. The balances are to be determined every day or within a definite period.

11. Divide a large amount into small packages; sales and inventory are counted by packages. This method is applied to the sale of commodities by weight, such as soda powder and sugar. They are first wrapped in small packages according to prescribed weights (4 ounces, half

chin, or one chin) and then sold by the package. In taking inventory, the actual quantity in stock can be obtained by counting the number of packages multiplying the total with the preselected weight per packages.

12. Calculate the quantity of liquid commodities through the use of signal rulers. Different signal rulers are made for measuring the quantity of commodities such as petroleum, wine, and edible oil, in accordance with the nature of different containers and the volume of different liquid commodities. In taking inventory, it is necessary only to insert a ruler into a container, and the actual volume will be known. A signal ruler may also be placed in a container marked with figure so that the actual volume in the container may be known at any time. The actual sales of a commodity may also be made out if the original amount in stock has been recorded.

13. Calculate inventory through the marking of figures for purchases and sales. For those commodities which have large amounts in stock and are sold by the piece and only in small amounts, the calculation of sales may be carried out by crossing "cheng: a counting system" at the time of selling. Inventory can be figured out from the amount of purchases and sales at the end of a period.

14. Establish special money receipts boxes to facilitate inventory-taking work. To take inventory of commodities such as stationary and drugs which comprise a large number of items would require a long time. The inventory of these commodities may be taken ahead of the general inventory-taking work by one day or two days, thereby giving the figure for the total value of purchases, sales and balances. Thereafter, the invoices obtained from sales of such commodities are to be separately deposited in a special box. The final figure for inventory value may be obtained by calculating purchases and sales from these invoices and the total inventory value previously obtained.

15. Total small and odd amounts to round sums. This method is applied to commodities (such as pen-points) which are purchased in boxes and baskets but are sold in small amounts or by the piece. Boxes and baskets of such commodities should be kept separately from odd amounts. At the end of a month, only the balances of odd amounts need to be counted. Adding such balances to unsold

boxes and baskets will give the actual figure of total stock on hand.

16. Calculate from receipts and sales to get inventory value. This method is applied to small, miscellaneous commodities such as button, hair pins, and pins. First count the amount of all such commodities to get the total inventory value, then set cards to record receipts, payments, and balances, and also special boxes to deposit receipts. The receipts and payments from sales and purchases and the resultant balances are recorded every day or within a definite period. If the work of checking accounts and physical commodities is regularly well performed, at the time of taking inventory there is only the need of writing down the balance figures on cards.

17. Arrange commodities in a fixed quantity for each layer. This is applied to commodities which are neatly packed such as cigarettes. They are arranged in a fixed quantity for each layer. The inventory of such commodities may be known by just counting the number of layers and the figure for odd amounts.

18. Count trade marks to get the figure for inventory. Commodities like socks are, in general, stamped with trade marks. Socks are to be displayed in such a way as to have the trade mark of every fifth or tenth pairs of socks turning outward. The inventory of socks will be known by just counting the number of such outward turning trade marks and the figure for odd amounts.

19. Mark numbers on packages to facilitate the calculation of inventory. This method is applied to seasonal commodities such as sweater, pants and cotton clothes. They are packed according to definite specifications after the end of a season. The amounts of such commodities are marked for each package. In taking inventory there is only the need of counting the number of packages. It is also practicable to first fill out commodity inventory tables from which the quantity and value of inventory are figures out. At the end of a month there will be no need to take inventory again.

20. Calculate sales and balances through the use of automatic instruments. These calculating instruments

are now employed by some retail units which have vigorously promoted technical innovation. They are different in outer appearances but basically alike in principle. Inside, they are equipped with varying sizes of cog-wheels (two or three wheels). Each cog-wheel has ten points marked with numbers from 0 to 9. These cog-wheel cross each other. One cog-wheel indicates numbers in odds, one cog-wheel indicates numbers in tens, one cog-wheel indicates numbers in hundreds. Every commodity has fixed amount in stock. Whenever a sale transaction takes place, the cog-wheel indicating odds is pushed forward. From the fixed amount in stock deduct the sale, figures as indicated by the calculating instruments, the balance represents goods in stock. Through the use of this method, the computation of figures has become more correct and convenient. A number of units are now experimenting with this practice.

21. For subsidiary agricultural products and waste materials the method of regularly counting physical inventory and measuring weight are not applicable. In general, inventory amounts are calculated by obtaining the balance figures from original vouchers with respect to purchases, transfers, and sales, and also from detailed commodity accounts. The procedure is to regularly record purchased amounts according to purchase vouchers. At the end of a period, compute the amount of transfers and sales. To deduct such resultant figures from the original inventory figures as shown in the commodity accounts will give figures of inventory at the end of a period. To be sure, in the case of some commodities of which storage loss is large, the amount of loss should be deducted.

As for the method of calculating values of commodity they are calculated according to concrete commodity categories at the end of a quarter when inventory is taken for all commodities. To take inventory in each month different methods are adopted for different categories of commodities and under different circumstances.

(a) Regarding waste materials, subsidiary agricultural products, livestock products, and agricultural means of production,-- inventory values are obtained by calculating purchases and sales according to purchase and transfer vouchers.

(b) As to those stores which handle only a few

kinds of commodities such as petroleum, tobacco, wine, and fresh and dried vegetables, inventory values may be obtained by a physical count of their entire stock.

(c) For those stores which sell commodities at special counters, their inventory values may be obtained by calculating receipts and payments from sales and purchases; money receipts are deposited in special boxes.

(d) Those stores which handle several kinds of commodities, inventory of small items and calculating the value of large items are adopted. For instance, those stores which handle the sales of sundries, knitting goods, and drugs can only calculate the values of drugs and knitting goods in stock. Deduct these values from the total inventory value, the balance gives the inventory value of sundries.

(e) Regarding those stores which handle a large number of commodities but not many transactions, inventory values may be obtained by calculating receipts from sales under different categories.